

What is claimed is:

1           1. A method for electronic tuning of the  
2 frequency of the read oscillation to the frequency of the  
3 stimulation oscillation in a resetting Coriolis gyro (1'),  
4 wherein  
5 - the resonator (2) of the Coriolis gyro (1') has a  
6 disturbance force applied to it such that  
7 a) the stimulation oscillation remains essentially  
8 uninfluenced, and  
9 b) the read oscillation is changed such that a read signal  
10 which represents the read oscillation, contains a  
11 corresponding disturbance component, wherein  
12 - the disturbance force is defined as that force which is  
13 caused by the signal noise in the read signal, and  
14 - the frequency of the read oscillation is controlled such  
15 that the magnitude of the disturbance component, which is  
16 contained in the read signal, is as small as possible.

1           2. The method as claimed in claim 1,  
2 characterized in that the signal noise is the noise of the  
3 tapping electronics.

1           3. The method as claimed in claim 1 or 2,  
2 characterized in that the disturbance component is  
3 determined from a signal which is applied to a quadrature  
4 regulator (17) in the quadrature control loop, or is  
5 emitted from it.

1           4. The method as claimed in claim 1 or 2  
2 characterized in that the disturbance component is  
3 determined from a signal which is applied to a rotation  
4 rate regulator (21) in the rotation rate control loop, or  
5 is emitted from it.

1           5. The method as claimed in one of the preceding  
2 claims, characterized in that the frequency of the read  
3 oscillation is controlled by controlling the intensity of  
4 an electrical field in which a part of the resonator (2) of  
5 the Coriolis gyro (1') oscillates.

1           6. A Coriolis gyro (1'), characterized by a  
2 device for electronic tuning of the frequency of the read  
3 oscillation to the frequency of the stimulation  
4 oscillation, having:  
5 - a noise detection unit (26) which determines the noise  
6 component of a read signal which represents the read  
7 oscillation, and  
8 - a control unit (27), which controls the frequency of the  
9 read oscillation such that the magnitude of the noise  
10 component, which is contained in the read signal, is as  
11 small as possible.

1           7. The Coriolis gyro (1') as claimed in claim 6,  
2 characterized in that the noise detection unit (26)  
3 determines the noise component from a signal which is  
4 applied to a rotation rate regulator (21) in a rotation  
5 rate control loop in the Coriolis gyro (1'), or is emitted  
6 from it.

8. The Coriolis gyro (1') as claimed in claim 6,  
characterized in that the noise detection unit (26)  
determines the noise component from a signal which is  
applied to a quadrature regulator (21) in a quadrature  
control loop in the Coriolis gyro (1'), or is emitted from  
it.